CLAIMS

1. A method for partially treating a water-repellent glass sheet to nullify a water-repellent function in part of the glass sheet, comprising the steps of:

providing a glass sheet having a water-repellent film formed thereon; and

irradiating a desired part of said water-repellent film with a stream of plasma jets to thereby eliminate said desired film part.

2. A method as defined in claim 1, wherein said water-repellent glass sheet includes an SiO_2-based undercoat interposed between a surface of said glass sheet and said water-repellent film, and said desired-film-part elimination is carried out such that said undercoat is left as it is.

3. A method as defined in claim 1, wherein said plasma jet irradiating step is performed by using a plasma jet irradiation gun which is set to operate at a power output of the order of 0.5 kW, is positioned 5-15 mm distant from a surface of said glass sheet and is set to move at a velocity of 1-60 mm/sec parallel to said glass sheet surface in each pass of treatment.

4. A water-repellent glass sheet produced by the partial treatment method as defined in any one of claims 1 to 3.

5. A water-r pellent glass sheet comprising:

an SiO_2-based undercoat formed on a surface of said glass sheet; and

a water-repellent film formed on said undercoat,

said water-repellent film having non-water-repellent portions provided by nullifying a water-repellent function at portions thereof where a water-repellent function is not required, and a sloped border portion separating said non-water-repellent portions and remaining water-repellent portion, said sloped border portion having a gradient water-repellent function.

6. A water-repellent glass sheet as defined in claim 5, wherein said undercoat remains present at said non-water-repellent portions.

7. A water-repellent glass sheet as defined in claim 5, wherein said undercoat is formed by a sol-gel process.